

Commonwealth Office of Technology

Rated Service Description

Application Development

CS10 Per hour

Application development services are provided within the structure of an established development process which is based on the Project Management Institute's "Project Management Body of Knowledge" (PMBOK), and follows industry standard Project Management Lifecycle and System Development Lifecycle methods. Application development services cover a broad spectrum that includes programming, analysis and project management services.

CS10 Includes the following **HARDWARE**

Not Applicable

CS10 Includes the following **SOFTWARE**

Not Applicable

CS10 Includes the following **SERVICES**

Application development services include but are not limited to Systems Analysis/Design, System Development (Programming), Data Base Design and Management, Application Integration, Application Implementation, Quality Assurance and Testing, and Project Management.

• **Project Initiation:**

Project Initiation activities occur before the project actually begins and answers the questions why, what and how. Why the project needs to occur, what the project will produce and how the desired product will be developed. Successful projects establish well-defined business goals, objectives and measures of success.

• **Planning/Analysis Services:**

- **Requirement Definition:** Assist business users in defining the business requirements to be addressed by a technical solution. Defining business requirements may include an analysis of the current business environment and then define the technical requirements for a proposed technical solution in operational terms (i.e. volume, speed, performance, security, architecture, etc.).

- **Business Analysis:** Assist Commonwealth agencies in the analysis of strategic business process to identify new business processes or improvements to current business processes that might be facilitated by a technical solution.

- **Facilitation:** Utilize facilitative techniques to assist the decision-making process of Commonwealth agencies in defining project objectives. Since facilitation services bring key users, decision-makers, and constituents together to focus on the task at hand, it has a broad application within the IT environment within the Commonwealth. It is especially valuable during the project initiation and definition phases of IT projects.

- **Hardware and Software Research:** Assist agencies that may not have available resources to investigate or remediate hardware and software issues that it encounters. When necessary, coordinate the involvement of other divisions within COT to assist with the research, or may involve other research resources that have contracts with the Commonwealth, such as Gartner Research.

- **Software Review:** Research, analyze and evaluate commercial software applications to ensure that they support the agency's business strategy and operate within a feasible technical architecture. Assist the business users in the identification of software evaluation requirements that address important aspects of the application (functionality, reliability, usability, efficiency, maintainability, and portability) and in the performance of a structured software review and evaluation process that results in sound, objective software procurement decisions.

• **Planning/Design Services:**

- **Application Design:** Define the specifications for a technical solution to meet the full set of business and technical requirements. During application design, the specifications will evolve from high-level (system or application) to mid-level (module) to low-level (component). The focus of application design is on application modularity and integration, with an emphasis on building the right product.

- **Data Modeling:** In the process of developing applications, Data Modelers will analyze the customer's data needs and create a Logical Data Model, including the naming and defining of necessary data elements, grouping data elements into tables and determining the relationships between various tables. The Physical Data Model will be based on the Logical Data Model as will Use Cases and Coding.

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- **Architectural Review:** Analyze and propose architecture solutions that support the organization's existing business strategy, that comply with the Commonwealth's architecture standards, and that can be adapted to sustain emerging technology trends. When necessary, coordinate the involvement of other areas of expertise within COT to assist with the evaluation.

• **Execution/Construction Services:**

- **Application Construction:** During application construction, the Office of Application Development (OAD) can build or construct the business application. Usually a great deal of additional application design is conducted at the program or component level.

In addition, OAD may produce the application's user and product documentation and develop user and technical training. Finally, OAD may convert data from an existing application.

- **Web Development:** COT provides professional Web site design, database development, e-commerce solutions, and content management systems.

- **Documentation Services:** Review new or existing applications for the purpose of creating or improving supporting documentation. Application documentation may include system design, file structures, database descriptions, application control procedures, security requirements, backup & recovery procedures etc.

- **IT Procurement Assistance:** Assist in the analysis of procurement options to determine which option is appropriate for the particular business needs. Develop, or assist in the development of, procurement requests such as Requests for Information (RFI), Request for Proposals (RFP), Strategic Alliance Services Requests (SASR), and Information for Bids (IFB), etc. OAD may review vendor proposals for compliance with applicable architectural and development standards. If appropriate, coordinate involvement of other areas of expertise within COT to assist with the review and formal evaluation of vendor proposals.

• **Control/Testing Services:**

- **Application Testing:** Validate application requirements and specifications by testing the application's functionality, usability, and technical performance. Application testing may also validate user and product documentation and the user and technical training.

- **Application Security Assessment:** Perform application security vulnerability assessments to ensure that Commonwealth applications are as secure as possible utilizing the most current tools and techniques available. Also test appropriate applications that enter the System Testing phase of the Software Development Life Cycle for security flaws and assist in the correction of those that would allow an application to be hacked. After application security testing is complete, assist development staff to find solutions to the application's vulnerabilities.

• **Control/Implementation Services:**

- **Application Deployment:** Manage or support the deployment of the application for use in the business environment. The product set that is deployed can include the application, the user and product documentation, and the user and technical training.

• **Support and Maintenance Services:**

- **Post-Implementation Support:** Provide application support throughout the life of an application. Provide ongoing system maintenance and enhancements and retire the application when it meets the end of its useful life.

- **Application Tuning:** Review application code, coding techniques, program design and interaction with data sources to improve application performance and efficiency.

CS10 To Initiate Service

Please contact the Commonwealth Service Desk:

· 24x7 Phone support: 502-564-7576 · Toll free support number: 800-372-7434

· Via e-mail CommonwealthServiceDesk@ky.gov

All services are initiated through the Commonwealth Service Desk. SSLA's (System Support Level Agreements) can be utilized for support of the application(s). The SSLA will cover support for all applications supported for your agency.

CS10 Additional Service Clarifications

None